Mutation by Default on Welsh Finite Verbs*

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1. About mutations

A characteristic feature of the Welsh language is the mutation of word-initial consonants in particular syntactic environments. The situation is a complex one: there are several different kinds of mutations, each with its own phonological effects; words of different syntactic categories and grammatical functions may undergo mutations; and a mutation may be triggered by an immediately preceding word, may be triggered by a word found elsewhere in the sentence, or may have no apparent trigger at all.

I will be considering only a small subset of the entire range of facts about Welsh consonant mutations. Specifically, I will be concerned with the soft and mixed mutations as they affect finite verbs. (Nonfinite verbs (or 'verb-nouns') behave like nouns with regards to mutation, rather than like finite verbs.[1]) Although the default form of words in Welsh is unmutated, I claim that there is a more specific generalization to be made about finite verbs, namely that they are by default mutated. This in turn is overridden by the requirement that under certain specific conditions, finite verbs are regularly unmutated.

1.1. Phonological effects

Although there are several mutation patterns, I will be considering examples only of soft mutation (also known as lenition) and mixed mutation. These mutations change radical (that is, underlying) consonants to the forms illustrated in (1), expressed here in conventional orthography:[2]

(1)

Radicals:	p	t	c	b	d	g	m	ll	rh
Soft Mutation:	b	d	g	f	dd	-	f	l	r
Mixed Mutation:	ch	ph	th	f	dd	-	f	l	r

These changes occur in the first consonant of a word or constituent. Note that the mixed mutation can be treated as a variant of the soft, since it shares many of the same phonological effects with soft mutation.

1.2. Defaults

One way to express generalizations in describing language is to identify the unmarked, 'elsewhere' case for a particular feature, and to specify only the circumstances under which a more marked value for that feature occurs. Zwicky (1986, 1989) discusses default and override relations between the general and the specific case, and the role of such relations in the grammar. Generalized phrase structure grammar makes use of feature specification defaults (FSDs) to capture the idea that a certain feature value is typically associated with a category. For example (Gazdar et al. 1985: 30-31) the default value in a grammar of English for the feature [INV] is 'minus'; this expresses the fact that in the general case, sentences are not inverted. Whenever the category S appears, then, the grammar is not required to specify any value for the feature [INV]. An S will automatically have the property [-INV] as a result of the relevant FSD. Only when a rule stipulates a value for this feature is the default overridden. Default statements express generalizations about language by identifying the unmarked situation and allowing exceptions to be treated exceptionally.

These defaults may be universal or parochial. Welsh apparently has a parochial set of default principles which cause finite verbs to be realized as [+MUT], barring evidence to the contrary. The most general case is that words are [-MUT]; overriding that is the default value

of [+MUT] for finite verbs; overriding that is the fact that finite verbs in particular situations are marked [-MUT]. A similar layering of defaults obtains the appropriate kind of mutation. The default realization of [+MUT] is soft; this is overridden in certain situations by stipulations that require the mixed or another mutation pattern to appear.

2. The environments of mutation on finite verbs

An examination of the sentence-types of Welsh reveals that in the spoken language, finite verbs most often appear in their soft mutation form. In this section I will list and provide examples of the syntactic environments in which soft-mutated verbs appear, as well as one class of examples involving verbs which have undergone the mixed mutation.

In spoken Welsh, affirmative sentences may be preceded by the affirmative marker fe (or in Northern Welsh, mi).[3] Welsh is a VSO language and so these particles are followed by a verb, which appears in its soft mutation form.

(2) Fe alla i siarad Cymraeg. (radical = galla)
PRT can/1SG 1SG speak Welsh.
'I can speak Welsh.'

(3) Fe brynes i ddau lyfr. (radical = prynes)
PRT bought/1SG 1SG two books.
'I bought two books.'

The interrogative marker in spoken Welsh may consist solely of the presence of soft mutation on the verb.

(4) Ddarllenwch chi hwn i fi? (radical = darllenwch)
read/FUT/2PL 2PL this for 1SG
'Will you read this for me?'

(5) Welest ti fe? (radical = gwelest)
saw/2SG 2sg 3sg
'Did you see him?'

The bookish versions of interrogative sentences have the preverbal particle a. It, too, is followed by a soft-mutated verb.

(6) A welaist ti ef? (radical = gwelaist)
PRT saw/2SG 2SG 3SG
'Did you see him?'

The facts concerning negative sentences are similar, but involve the mixed mutation. Increasingly in speech, however, soft mutation of all mutable consonants is taking over in this environment. Ni is the negative preverbal particle used in statements. It is followed by soft mutation; in speech ni is omitted but the verb's mutation is not.

(7) Ni thalodd ef. (radical = talodd)
NEG paid/3SG 3SG
'He did not pay.'

(8) Thaliff e'r un geiniog. (radical = taliff)
pay/FUT/3SG 3SG one penny
'He won't pay a penny.'

Oni, reduced in speech to ni, is the preverbal negative interrogative particle. Na is the corresponding answer particle. Both are followed by soft-mutated verbs.

(9) Oni thaliff ef?
NEG pay/FUT/3SG 3SG
'Won't he pay?'

(10) Na thaliff.
NEG pay/FUT/3SG
'No.'

Verbs are also mutated following relative clause markers, both affirmative and negative. The affirmative clause particle may be omitted, but the following mutation remains.

(11) Dyna'r dyn (a) weles i'n dod allan o'r banc. (radical = gweles)
that-is-the man (whom) saw/1SG 1SG/PRT come out of-the bank
'That's the man (whom) I saw coming out of the bank.'

(12) Y dyn na ddaeth (radical = daeth)
the man who/NEG came/3SG
'the man who did not come'

Soft mutation also appears on verbs following the optional complementizer a 'whether'.

(13) Gofynnodd (a) alle fe ddod. (radical = galle)
asked/3SG whether could/3SG 3SG come
'He asked whether he could come.'

After a preposed NP (an emphasized or topicalized NP, or an interrogative word), a verb carries soft mutation.

(14) Damwain welon ni. (radical = gwelon)
accident saw/2PL 2PL
'We saw an accident.'

(15) Dr Rhys brynodd y bwthyn. (radical = prynodd)
bought/3SG the cottage
'Dr. Rhys bought the cottage.'

(16) Pwy ddaeth i mewn? (radical = daeth)
who came/3SG into
'Who came in?'

(17) Fe es i pan ddaeth e.
PRT went/1SG 1SG when came/3SG 3SG
'I went when he came.'

Similarly, soft-mutated inflected verbs follow question words like beth 'what' and faint 'how much/many'.

Verbs also appear in their soft-mutated form after the infixed pronouns 'i, 'w (both 3SG MASC) and 'th (2SG). However, on closer inspection this turns out not to be a very relevant set of facts for our purposes. These pronouns trigger soft mutation, but other members of their paradigms have different effects. Some trigger the spirant mutation, and others preserve the radical. Thus it is an idiosyncratic fact about these particular lexical items that they are always immediately followed by a particular form of the mutable consonants, no matter what the category of that following mutated constituent. These morphophonemic requirements can be coded into the pronouns' lexical entries, and need not concern us further - though it is important to note that these lexical specifications override the default value of the mutation feature when the two are in conflict. (See Powers 1988 for a discussion of these pronouns and the mutations they trigger.)

3. The environments of radical-initial finite verbs

Though (as I claim) finite verbs are mutated by default, there are numerous syntactic environments in which verbs appear in their radical form. This fact might seem to contradict the idea that mutation is the unmarked condition for verbs, but if these various constructions all fall into a defineable pattern, they too can be easily explained. Here I present the range of occurrences of radical-inital verbs, and show that a generalization can in fact be found.

As observed in section 2, declarative non-negative Welsh sentences may contain the preverbal particle fe or mi. The particle may also be omitted; as pointed out by Jones and Thomas (1977: 362) and by James Fife (p. c.), there is a great deal of variability among speakers and dialects as to the form of the sentence-initial verb. However, I will consider the written variety of Welsh used in Awbery (1976), Harlow (1986), and Sadler (1988). In it, declarative sentences without an initial affirmative particle have an initial radical verb.

(18) Cafodd y lleidr ei ddal gan yr heddlu.
got/3SG the theif 3SG catch by the police.
'The thief was caught by the police.'

(19) Rhoddodd y dyn y ffon i'r ci.
gave/3SG the man the stick to-the dog.
'The man gave the stick to the dog.'

Similarly, sentence-initial finite impersonal verbs do not show mutation. (These verbs belong more to a formal style than to conversational Welsh.)

(20) Gwelir y môr.
sees/IMPRS the sea
'One sees the sea / One can see the sea.'

(21) Telid arian iddynt
pay/IMPRS money to/3PL
'Money would be paid to them.'

Welsh has no direct equivalent of English 'yes' and 'no.' Questions are usually answered with the appropriate inflected form of the verb in the question. These verbs used as replies to questions are unmutated.

(22) (Oni chlywent hwy'r sŵn?) Clywent.
neg hear/3PL 3PL-the noise hear/3PL
'(Could they not hear the noise?) They could (hear).'

(23) (A ddaw ef?) Daw, daw.
PRT come/3SG 3SG come/3PL
'(Is he coming?) Yes, yes.'

Imperative verbs are also consistently unmutated.

(24) Gwna hyn!
Do/IMPV/2SG these
'Do these!'

(25) Gofynnwch iddo fe.
ask/IMPV/2PL to/3SG 3SG
'Ask him.'

(26) Peidiwch â cholli eich tymer.
stop/IMPV/2PL PRT lose 2PL/GEN temper
'Don't lose your temper.'

Verbs appear in their radical form following the complementizer y (whether it is realized as y or is null) and the complementizers os and pe, both meaning 'if'.

(27) y dyn y dywedodd Siôn y gwelodd Mair
the man that said/3SG John that saw/3SG Mary
'The man that John said saw Mary'

(28) Fe ddwedodd e (y) gallc fe ddod.
PRT said/3SG 3SG (that) could/3SG 3SG come
'He said that he could come.'

(29) Os dewch chi, fe ddown ni hefyd.
if come/2PL 2PL PRT come/FUT/1PL 1PL too
'If you come, we'll come too.'

(30) Fe fasen ni'n hapus pe basech chi'n gallu dod.
PRT would/1PL 1PL-in glad if would/2PL 2PL-in be able come
'We would be glad if you were able to come.'

Following neu 'or', verbs are unmutated.

(31) Gwrandewch ar y radio neu byddwch yn dawel
listen/IMPV/2PL to the radio or be/IMPV/2PL PRT quiet
'Listen to the radio or be quiet.'

In conversational Welsh the finite verb meddwn i 'I said,' etc. is used to report speech. This verb has no infinitive, negative or interrogative forms, is never preceded by fe or mi, and occurs mainly in the past tense. It appears without mutation.

(32) 'Rwy'n mynd,' medde fe wrtho i un bore.
am-in go said/3SG 3SG to 1SG one morning
'"I'm going," said he to me one morning.'

(33) 'Paid â mynd heb dy fag,' meddwn i wrtho fe.
stop PRT go without 2SG/GEN bag said/1SG 1SG to 3SG
'"Don't go without your bag," said I to him.'

The interrogative words ble 'where', pryd 'what time', pam 'why', and sut 'how' are followed by the radical form of verbs (and other categories). In written usage these words are followed by y; in the spoken language this complementizer is null. Furthermore, it appears that sentence adverbials are not followed by mutated verbs, but rather radical ones, as in examples (34) and (35).

(34) Gobeithio byddwch chi'n gallu dod.
hopefully be/FUT/2PL 2PL-in be able come
'I hope that you will be able to come.'

(35) Rhyw brynhawn gwelais ddieithryn yn yr ardd.
some afternoon saw/1SG stranger in the garden
'One afternoon I saw a stranger in the garden.'

Finally, the third person present form of 'be', mae, appears to be immune to mutation[4]. It never occurs in any form other than the radical, even in environments in which other finite verbs are mutated. Consider the clefted sentences in (36) and (37); preposed NPs normally are followed by a mutated verb, as discussed above.

(36) Ei dad mae Ifan yn weld.
3SG/GEN father is in see
'It is his father that Ifan is seeing.'

(37) Dreifio car mae'r dyn
drive car is-the man
'It is driving a car that the man is.'

We have also observed that verbs mutate following a relative particle. However, Williams (1980: 52) observes that 'initial b in forms of bod sometimes remains unmutated' when preceded by an affirmative or negative relative particle.

(38) rhai na buont
those who/NEG were/3PL
'those who were not'

4. Generalizations and exceptions

Upon comparing the conditions under which finite verbs appear in mutated and radical forms, we can extract the following generalizations:[5]

(39) By default, finite verbs are [+MUT].

(40) Finite verbs which occur initially in non-negative, non-interrogative, non-WH clauses are [-MUT].

To see that (40) is a valid generalization, consider the data presented in section 3 as compared to that in section 2. In (18-21) we saw that when the verb was the very first element in its clause, it was unmutated if the clause was non-negative and non-interrogative. Similarly, the verbs in (24) and (25) functioning as affirmative answers to questions were in the radical, as were the sentence-initial imperative verbs in (24-26). The form in (26) is a bit deceptive; it appears that forms of peidio (â) should be negative, since the verb is is translated as 'don't'. In fact, however, this verb means 'cease' or 'stop'. This use of the verb is semantically negative, but there is no reason to assume it is syntactically negative.

Other examples in section 3 require examination. Although it may appear that some of these verbs are not sentence-initial, in fact they are the first element in their S (as opposed to S'). In (27) and (28), y (or a trace) is in COMP, and so is not a part of S. Of course, the relative clause markers in (11) and (12) and the complementizer in (13) are also in COMP, leaving the verb S-initial, but those clauses bear the feature [+WH] and, in the case of (12), [+NEG]. Os 'if' and pe 'if' are also [-WH] complementizers. In (31), neu 'or' is external to the S (as Harlow 1986: 20 points out) and so the following verb meets the conditions in (40). The verbs of reported speech in (32) and (33), though they follow a string which could be of any length, are clearly S-initial. The occurrence of the radical on verbs following the adverbs ble 'where', pryd 'what time', as mentioned earlier, is due to the fact that they are followed by an overt or null form of y; since y is a complementizer, neither it nor the adverbial preceding it is S-internal. Therefore the verb is initial in its clause; the adverb is outside it. Furthermore, these adverbs are WH-words. The examples in (34) and (35) are somewhat harder to explain, however. The lack of mutation on verbs following fronted adverbial phrases is historically due to the fact that such phrases would also be followed by y (James Fife, p. c.) but it is not clear that there is any synchronic evidence for assuming a null y still exists in such constructions. It appears that adverbials such as gobeithio 'hopefully' and rhyw brynhawn 'one afternoon' of (34) and (35) are sisters to the clause containing the verb, but are not daughters of that S.

The apparently exceptional forms of the copula bod exemplified in (36 -38) are, I'd suggest, just that. Apparently mae simply has no mutated counterpart in Welsh, and neither do certain b-initial forms of bod. Bod is a highly irregular verb, and so it hardly seems surprising that it is exceptional in being selectively immune to mutation as well as being exceptional in its morphology. The unmutable form mae appears with great frequency, however, because of the very common use (especially in the spoken language) of periphrastic constructions.[6]

Note that there is independent evidence in the grammar of Welsh for the morphological importance of the features [NEG] and [INTERROG], which (along with [WH]) are crucially referred to by the generalization in (40). The copula exhibits separate inflectional paradigms for [+INTERROG], [+NEG], and [-INTERROG, -NEG] forms. In (41) I provide only the present tense forms.

(41)

	[-INTERROG, -NEG]	[+INTERROG]	[+NEG]
1SG	rydw	ydw	dydw
2SG	rwyt	wyt	dwyt
3SG	mae	ydy	dydy
1PL	rydyn	ydyn	dydyn
2PL	rydych	ydych	dydych
3PL	maen	ydyn	dydyn

Therefore, the claim in (40) is made more plausible by the differentiation of verbal forms according to these features. Furthermore, there is some independent evidence that the grammar of Welsh is sensitive to whether or not a verb is S-initial. Rhys Jones (1977: 87) points out that there are words used to mean 'yes' and 'no' which are used to answer a question that 'begins with any part of speech other than the personal form of a verb':

(42) Bachgen yw Tom? Ie/Nage.
boy is
'Is Tom a boy? Yes/no.'

Given that all the examples of radical finite verbs from section 2 can either be explained as conforming to the generalization in (40) or, in a very limited set of cases, being due to a special lexical exceptionality, the generalization in (39) is valid. Except in a well-defined set of circumstances, finite verbs are realized in mutated form.

5. Layers of defaults

Zwicky (1986, 1989) points out that defaults and overrides may come in more or less deeply layered sets. That is, a very general condition may hold, with a more specific principle overriding it (following Panini's Principle); that principle may in turn be overridden by a still more specific one, and so on. The principles determining the facts about Welsh consonant mutations on verbs are layered in just such a way; in fact, there are two different sets of defaults and overrides at work in these phenomena. One deals with the presence or absence of mutation on constituents, and the second deals with the sort of mutations that appear.

As stated earlier, the broadest generalization about Welsh's mutation system is that words are unmutated. A more specific statement about finite verbs, (39), overrides this, so that these verbs are mutated. (39) itself is overridden by the even more specific statement in (40), resulting in verbs in certain environments being in the radical. Finally, the most specific layer of all involves particular lexical items. No matter what other verbs are doing, if mae 'he is' is lexically marked as being [-MUT] (or as having no mutated form made available in the lexicon), it will fail to conform to any general requirement of mutation. In a somewhat different vein, the infixed pronouns discussed at the end of section 2 have special, specific requirements about the form that a following word will take; these requirements override any non-lexical, less specific ones.

Another layering of defaults is involved in the determination of which mutation pattern will appear once it is established by the grammar that a constituent is [+MUT]. The facts relevant to the data in this paper are quite simple: the default mutation is soft, but in the presence of the negation feature, the mixed mutation is used.

5. Conclusion

Other studies of Welsh consonant mutations have proposed that soft mutation be the unmarked case. Willis suggests that lenition is unmarked across morpheme boundaries within the 'phonological word'. Zwicky (1984, 1986) goes further in proposing that NPs be soft-mutated by default. This approach fits well with observable facts about the language--that speakers' use of soft mutation is on the rise, though perhaps only at the expense of the other mutation patterns, and not of the radical. I have found that it also fits well with facts about finite verbs in Welsh. I have proposed that finite verbs receive soft mutation by default, and that this default may be overridden by more specific principles.

Notes

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1. See for example the discussions in Willis (1982: 64-66) and Zwicky (1984: 387, 391, 393) concerning the differences between non-finite and finite verbs, and the similarities between non-finite verbs and nouns with regard to mutation.

2. <p, b, t, d, g, m, l> all have their usual values. <c> = /k/, <f> = /v/, <dd> = /ð/, <ch> = /x/, <ph> = /f/, and <th> = /θ/. <ll> is a voiceless unilateral fricative; <r> is a trilled or flapped alveolar /r/ and <rh> is its voiceless aspirated counterpart. '-' in the chart in (1) indicates that the radical consonant is deleted by mutation.

3. According to Jones and Thomas (1977: 7), i is sometimes used instead of fe in southern Welsh.

4. And presumably the third plural, as well. This form, maen, is used only with the third person plural pronoun nhw, expressed or understood. Then the subject of the copula consists of one or more nouns, mae is always used.

5. Cf. Harlow (1986) for another analysis; he argues that NPs trigger soft mutation on any following constituent.

6. These have the form [finite vb - subj - prt - verbal noun - object]; the finite verb is always a form of bod.

References

Awbery, G. M. (1976). The syntax of Welsh. Cambridge: Cambridge Univeristy Press.

Gazdar, Gerald, Ewan Klein, Geoffrey Pullum, and Ivan Sag. (1985). Generalized phrase structure grammar. Oxford: Basil Blackwell.

Harlow, Stephen. (1986). The syntax of Welsh soft mutation. Paper presented to the Kentucky Foreign Language Conference, Lexington, Kentucky.

Jones, Morris and Alan Thomas. (1977). The Welsh language: Studies in its syntax and semantics. Cardiff: University of Wales Press.

Powers, Joyce. (1988). On the government of mutation in Welsh. ESCOL '87: Proceedings of the Fourth Eastern States Conference on Linguistics, 247-259.

Rhys Jones, T. J. (1977). Living Welsh. London: Teach Yourself Books (Hodder and Stoughton).

Sadler, Louisa. (1988). Welsh syntax: A government-binding approach. London: Croom Helm.

Williams, Stephen. (1980). A Welsh grammar. Cardiff: University of Wales Press.

Willis, Penny. (1982). The initial consonant mutations in the Brythonic Celtic languages. Ph.D. dissertation, CUNY.

Zwicky, Arnold. (1984). Welsh soft mutation and the case of object NPs. Chicago Linguistic Society 20.387-402.

Zwicky, Arnold. (1986). The general case: Basic form versus default form. Berkeley Linguistics Society 12.305-14.

Zwicky, Arnold. (1989). What's become of derivations? Defaults and invocations. This volume, and Berkeley Linguistics Society 15.